

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method of processing an application request on an end user application and an application server including a ~~runtime middleware~~, the method comprising:

a) initiating the application request on the end user application in a first language with a first application program, ~~wherein the end user application is a web browser, a SOAP application, or a Java application;~~

b) transmitting the application request to the application server and converting the application request from the first language of the first end user application to a form for ~~[[the]]~~ a mapping support language running on the application server, wherein the end user application is connected to the application server through a web server ~~runtime middleware that is an application or a web application server~~, the ~~web application~~ server comprising a connector;

~~c) processing said application request on the application server;~~

~~d) transmitting a response to the application request from the application server to the end user application, and converting the response to the application request from the mapping support language running on the application server to the first language of the first end user application; and~~

~~e) wherein the connector comprises having invocation and transformation capabilities, wherein the connector comprises:~~

1) a language metamodel to define data structures that represent connector interfaces, wherein the language metamodel indicates a source language, a target language, and a mapping between the source language and the target language, wherein the language metamodel comprises declaration text that is not editable; ~~wherein the connector comprises~~

2) a type descriptor metamodel that is language neutral and that defines a physical realization, a storage mapping, and a plurality of

constraints, wherein the type descriptor metamodel provides a physical representation of individual fields of a given data structure, wherein the type descriptor metamodel provides data types mapping between languages;~~wherein the connector comprises~~

- 3) invocation metamodel data_i[[,]]
- 4) application domain interface metamodel data_i[[,]]
- 5) transaction message metamodel data_i[[,]] and
- 6) type descriptor metamodel data_i[[,]]

and wherein the connector is configured to (i) convert the application request from the first language of the first end user application as a source language to the language running on the application server as a target language, and (ii) convert a response to the application request from the language running on the application server as a source language to the first language of the first end user application as a target language, each ~~comprise~~ conversion comprising:

1) invoking connector metamodels of respective source language and target mapping support language;

2) populating the connector metamodels with metamodel data of each of the respective source language and target mapping support language, the metamodel data comprising IBM 3270 terminal (3270) screen formatting for 3270-based applications, the metamodel data comprising a Basic Mapping Support (BMS) map, a BMS mapset, a BMS mapfield, and BMS attributes, wherein the BMS map set comprises a plurality of programming attributes, wherein the programming attributes comprise a storage operand that varies based on a language of an application program, wherein the BMS attributes comprise a control attribute that defines characteristics of 3270 terminals, and an alarm attribute that activates a 3270 audible alarm; and

3) converting the source language to the mapping support language[[.]];

c) processing said application request on the application server;

d) converting a response to the application request from the mapping

support language running on the application server to the first language of the first end user application; and

e) transmitting the response to the application request from the application server to the end user application.

2-12. (Canceled)

13. (Previously Presented) The method of claim 1 wherein the connector uses BMS metadata for interpretive marshaling.

14. (Previously Presented) The method of claim 1 wherein the connector uses adapters.

15. (Currently Amended) A computer-program product processing an application request on an end user application and an application server ~~including a runtime middleware~~, the computer program product comprising a storage medium tangibly embodying computer readable program code, the computer program product comprising:

a) code for initiating the application request on the end user application in a first language with a first application program, ~~wherein the end user application is a web browser, a SOAP application, or a Java an application;~~

b) code for transmitting the application request to the application server and converting the application request from the first language of the first end user application to a form for a mapping support language running on the application server, wherein the end user application is connected to the application server through a web server ~~runtime middleware that is an application or a web application server~~, the ~~web application~~ server comprising a connector;

~~c) code for processing said application request on the application server;~~

~~d) code for transmitting a response to the application request from the~~

~~application server to the end user application, and converting the response to the application request from the mapping support language running on the application server to the first language of the first end user application; and~~

~~— e) — wherein the connector comprises having invocation and transformation capabilities, wherein the connector comprises:~~

~~1) a language metamodel to define data structures that represent connector interfaces, wherein the language metamodel indicates a source language, a target language, and a mapping between the source language and the target language, wherein the language metamodel comprises declaration text that is not editable; wherein the connector comprises~~

~~2) a type descriptor metamodel that is language neutral and that defines a physical realization, a storage mapping, and a plurality of constraints, wherein the type descriptor metamodel provides a physical representation of individual fields of a given data structure, wherein the type descriptor metamodel provides data types mapping between languages; wherein the connector comprises~~

~~3) invocation metamodel data_i[[,]]~~

~~4) application domain interface metamodel data_i[[,]]~~

~~5) transaction message metamodel data_i[[,]] and~~

~~6) type descriptor metamodel data_i[[,]]~~

and wherein the connector is configured to (i) convert the application request from the first language of the first end user application as a source language to the language running on the application server as a target language, and (ii) convert a response to the application request from the language running on the application server as a source language to the first language of the first end user application as a target language, each comprise comprising:

1) code for invoking connector metamodels of respective source language and target mapping support language;

2) code for populating the connector metamodels with metamodel data of each of the respective source language and target mapping support language, the

metamodel data comprising IBM 3270 terminal (3270) screen formatting for 3270-based applications, the metamodel data comprising a Basic Mapping Support (BMS) map, a BMS mapset, a BMS mapfield, and BMS attributes, wherein the BMS mapset comprises a plurality of programming attributes, wherein the programming attributes comprise a storage operand that varies based on a language of an application program, wherein the BMS attributes comprise a control attribute that defines characteristics of 3270 terminals, and an alarm attribute that activates a 3270 audible alarm; and

3) code for converting the source language to the mapping support language[.];

c) code for processing said application request on the application server;

d) converting a response to the application request from the mapping support language running on the application server to the first language of the first end user application; and

e) code for transmitting the response to the application request from the application server to the end user application.

16. (Previously Presented) The computer-program product of claim 15 wherein the connector uses BMS metadata for interpretive marshaling.

17. (Previously Presented) The computer-program product of claim 15 wherein the connector uses adapters.

Please add the following claim:

18. (New) A computer-implemented method of processing an application request, the method comprising:

a) receiving, by the application server, an application request initiated on the end user application in a first language with a first application program;

b) converting the application request from the first language of the first end user application to a form for a mapping support language running on the application server, wherein the end user application is connected to the application server through a web server, the web server comprising a connector that has invocation and transformation capabilities, wherein the connector comprises:

- 1) a language metamodel to define data structures that represent connector interfaces, wherein the language metamodel indicates a source language, a target language, and a mapping between the source language and the target language, wherein the language metamodel comprises declaration text that is not editable;
- 2) a type descriptor metamodel that is language neutral and that defines a physical realization, a storage mapping, and a plurality of constraints, wherein the type descriptor metamodel provides a physical representation of individual fields of a given data structure, wherein the type descriptor metamodel provides data types mapping between languages;
- 3) invocation metamodel data;
- 4) application domain interface metamodel data;
- 5) transaction message metamodel data; and
- 6) type descriptor metamodel data;

wherein the connector is configured to (i) convert the application request from the first language of the first end user application as a source language to the language running on the application server as a target language, and (ii) convert a response to the application request from the language running on the application server as a source language to the first language of the first end user application as a target language, each conversion comprising:

- 1) invoking connector metamodels of respective source language and target mapping support language;
- 2) populating the connector metamodels with metamodel data of each of the respective source language and target mapping support language,

the metamodel data comprising a Basic Mapping Support (BMS) map, a BMS map set, a BMS mapfield, and BMS attributes, wherein the BMS map set comprises a plurality of programming attributes including a storage operand that varies based on a language of an application program, wherein the BMS attributes comprise a control attribute that defines characteristics of terminals of a specific type; and

- 3) converting the source language to the mapping support language;
- c) processing said application request on the application server;
- d) converting a response to the application request from the mapping support language running on the application server to the first language of the first end user application; and
- e) transmitting the response to the application request from the application server to the end user application.